MODIS QUARTERLY REPORT
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Due to the interlocking nature of a number of projects, this and subsequent reports will contain coding to reflect the funding source. MODIS funded activities are designated with an M, SeaWIFS with an S, and Pathfinder with a P. There are several major sections within this report; Database, client/server, matchup database, and DSP support.

A. NEAR TERM OBJECTIVES

A.1 MODIS Objectives (M)
A.1.1. Continue to develop and expand the processing environment

a. increase computational efficiency through concurrent operations
b. determine and apply more efficient methods of data availability for processes

A.1.2. Begin extensive testing using global CZCS and AVHRR GAC data with database processing to test the following:

a. algorithm capability
b. machine and operating system stability
c. functionality required for the processing and analysis environment

A.2 SeaWIFS Objectives (S)
A.2.1. Continue testing of processing methodology.
A.2.2. Continue to develop relationship between database and in-situ environment.

A.3 Pathfinder Objectives (P)
A.3.1. Expand matchup database as applicable.
A.3.2. Continue testing of methodology.
A.3.3 Train and integrate new personnel into Matchup Database processing scheme.

A.4 DSP Objectives (M)

A.4.1. Continue testing of processing methodology.
A.4.2. Continue to expand the number of sites supported.
A.4.3. Expand the supported hardware/software platforms

B. OVERVIEW OF CURRENT PROGRESS

B.1 Automatic Processing Database (P)

B.1.1 Processing -Pathfinder

B1.1.1 January Processing

A set of new processing machines was installed and used for the operational processing, which required frequent shutdowns of the processing to accommodate the new hardware and software used with the upgraded equipment. (These adjustments were needed to test/assimilate the use of ATM between machines, replacing the slower FDDI links.)

The pf2b run noted earlier was run for weeks 9401 through 9321, then processing was paused while hardware and software were adjusted, and this run was analyzed.

B.1.1.2 February Processing

B.1.1.3 March Processing

The pfad version of the processing was performed on the 1994/NOAA-11 files (through day 256). To further investigate the scan angle effects, a special run of for sets of two weeks of processing was performed, keeping the value for channel 4 minus channel 5 (ch4m5) for six ranges of scan angles: below 10, 10-20. 20-30. 30-40. 40-50. 50-69, and greater than 60.

B.1.2 January APServer Development

The APServer system is, for all practical purposes, complete. All source and, command files have been checked into CVS, and the only anticipated changes that are needed are to the orbit scanner program(s), to better identify and cope with input file problems.

Processing was largely performed using the aps/AutoSys software. The APServer system was used as backup and to perform short processing jobs (a few days' of orbits at a time), so no additional work was needed for the APServer system. Note that the APServer system was used for producing daily files from the orbits, and for all cloud-masking and product production.

January Pathfinder Development

In early January, it was discovered that the change in internal coefficient was resulting in an abnormally low temperature cutoff in the most recent Pathfinder processing, and would need to be reprocessed. (This reprocessing was already planned, due to further changes and testinf concerning the pathfinder algorithm.)

A new run was made termed "pf2b," and used not only the most current pathfinder coefficients, but also had a second SST estimate, calculated from a set of "experimental" coefficients determined separately for ascending and descending data. In this run, the value for channel 4 minus channel 5 was stored, and also segregated by scan angle, that is, the

ch4m5 value was stored four times per pixel, once for scan angles less than 30 degrees, between 30 and 45 degrees, greater than 40 degrees, and one for all angles.

B.1.2.1 February Development

The APS/AutoSys software again controlled the basic processing, and now also the production of the daily files. Cloud-masking and product production either used the APServer system, or was done by hand. The APServer system was used quite a bit for short runs (2-3 days' worth of orbits at a time).

The orbit pre-scanner was modified slightly to attempt to better identify orbits containing missing or bad blocks of scan lines. These adjustments improved the ability of the scanner to catch the bad blocks, but some are still remaining in the final processing. The scanning and processing both need to better identify these blocks.

A new task to be performed is the ability to extract SST data, and other requested fields (quality, number of input points, etc.) from the binned data, and store it either as matchup data to a set of input points in space and time (x, y, t matchups) or as time series at a point (ts at x, y). A number of small tools will be needed for this, both to prepare the "query" ability, and to sort/assemble the output into the desired format.

B.1.2.3 March Development

Matchup/Time Series Extraction

A program was written to extract the count, quality and SST value from an input binned file for either a single bin, or a set of bins contained in an input file.

A file was created containing all in_situ data matchups for NOAA-11. This file contains the time, lat, lon, buoy/reference for all previously identified satellite/buoy ute the "SST query" files and will be used to extract matchup data from the ascending and descending daily binned files from the AVHRR/GAC processing. The output will be stored in corresponding extraction files, and will be recombined into a single matchup file for analysis.

To construct time series at a point, a file was created in "DIM" format (a DSP-recognized data format for lat/lon pairs), and the bin numbers associated with them.

A command file was written to extract these points from a set of binned files, and another was written to recombine these into time series files.

B.2 Processing Systems Status (M)

B.2.1 MODIS V1

- A description of the processing required for the daily and weekly ocean color and SST products was submitted to SDST for review. This document listed each program, it's inputs and outputs an activation rule. It was intended help SDST understand how these products are produced and to serve as a starting point for discussion between Miami and SDST about requirements for the Miami PGE scripts.

- MODIS Science Data Processing Version 1 Requirements Specification was reviewed and comments submitted to SDST.

- Interface Specifications for MODIS Operational Software was reviewed and comments submitted to SDST.

- Interface Control Document Between EOSDIS Core System and Science Computing Facilities was reviewed.

- MODIS Beta Product Generation Executive Script Design Document was reviewed.

- Production Rules White Paper was reviewed and requirements submitted to ECS and SDST.

- Version 1 Metadata Dictionary white paper was reviewed and comments submitted to SDST.

B.2.2 Networking

- DEC ATM hosts were upgraded to v1.11 for Digital UNIX T4.0-2.

- SGI ATM hosts upgraded to 2.0-Beta for IRIX 6.2

- Two DEC 2100s, orange and apricot, were added to the ATM network.

- Patch for QAR 45279 that includes all ATM signaling related fixes has been applied to all Digital UNIX 4.0-2 machines.

- DEC Gigaswitch was upgraded to v1.4eft firmware. This version includes UNI 3.1 and LAN emulation support.

- Problems were discovered with the initialization scripts provided with T4.0-2. There is a limitation of the Gigaswitch/ATM that only allows it to register eight ESIs. CLIP now tries to register its own ESI and the switch rejects this (other switches don't have this limitation). DEC has added this information to the final release notes. Additionally, the 'wait' argument to atmsig command will hang instead of returning as it should when signaling has been initialized.

- ATM system initialization scripts were enhanced to deal with the v1.4eft firmware and also to eliminate the need to customize the script for individual hosts. The procedure relies on the fact that the atm ip host name ends with "-a" and looks in the /etc/hosts to get the atm ip address for ifconfig. It also allows the arp server to be specified in rc.config as long as there is a valid entry in /etc/atmhosts for the server.

B.2.3 VMS systems

- CHINOK and MISTRL were upgraded to OpenVMS AXP v6.2. MARIAH remains at V6.1 until the Sony device driver can be updated and test on V6.2.

- Three DEC 3000s were configured with 4 GB (ST Barracuda) disks, DCT-1100 DRQ3B DMA I/O modules and VMS AXP V6.2. They were named KONA, HABOOB and SIROCO.

- XDELTA proves inadequate for debugging device drivers written in C so KONA and SIROCO were configured for kernel debugging using the AXPsystem-code debugger. These machines must be dedicated to debugging since SDA uses a private Ethernet protocol and requires the host and target be standalone and on the same Ethernet segment.

- Support for OpenVMS AXP V6.2 was added to the Sony jukebox device driver. OpenVMS V6.2 included the final version of the SCSI port interface for VMS AXP and contained changes in the names SPDT entry points and data structures.

- Sony jukebox device driver was enhanced to support the WDA-330 and WDA-610 jukeboxes using the same code base.

- HABOOB was connected to WDA-610 Sony jukebox previously connected to JESSE in order to test the V6.2 driver. Test runs with the new driver uncovered problems with the robotic commands. The default SCSI connection for the V6.2 port driver does not have disconnects enabled. Testing showed that the WDA-610 jukebox would hang the SCSI bus on certain robotic commands unless disconnects are enabled on the connection.

- DCL command procedures that automate the distribution of data using juke manager were configured for HABOOB and a copy of the juke manager RDB database was exported from JESSE.

B.2.4 UNIX Systems

- These processing machines were upgraded to Digital UNIX T4.0-2: apricot, orange, imbe rambutan, enuka, ugli, canoe, guanabana. Pineapple, apple and modis remain at V3.2C.

- Andrew was upgraded to IRIX 6.2.

- Compatibility issues with Digital UNIX T4.0-2:

Sybase release 10.0 is not certified on V4.0 and the dataserver does not start on T4.0-2.

Networker client 3.1a does not work on Advfs disks under T4.0-2 and the 3.1 client does not work with a 3.1a server. Since both pineapple and apple have been upgraded to Networker 3.1a and modis is the only networker client running 3.2C modis is the only working client. This means files must be ftped to apple or pineapple or backed up using NFS.

AutoSys license verification fails on T4.0-2. This problem has been submitted to Platinum. We will be running with temporary AutoSys licenses until a solution is found.

- Compatibility issues with IRIX 6.2:

Sybase is not certified on IRIX 6.2 and we have not tested it.

Legato's ClientPak for UNIX rel 4.1.3, the latest release, does not support IRIX 6.2 so we are left without a Networker client for SGI.

The SDPTK does not build on IRIX 6.2. The problem appears related to the use of the ANSI compiler switch.

- A problem was discovered under V3.2C with sharing a StorageWorks raid disk between Sybase and Advfs when one partition allocated to Sybase and the rest to an Advfs domain. The raid disks work fine when used exclusively by either Advfs or Sybase.

- Sybase Release 10.0 was installed and the AutoSys database was moved to modis, running 3.2C, due to the problems Sybase under T4.0-2.

B.3 Matchup Database (P)

B.3.1 1st Quarter Matchup Database

During this period we continued the compilation of in situ sea surface temperature (SST) data from moored and drifting buoys in order to build a co-temporal, co-located set of in situ and AVHRR data. We have now completed the production of 1994 matchups for NOAA-11. This gives us a complete database of matchups for the entire lifetime of the AVHRR aboard NOAA-11 (November 1988 to September 1994). We also have completed the compilation of in situ SST data for 1995, the first step towards developing NOAA-14 matchups.

Beginning with the 1994 NOAA-11 matchups, we incorporated a new source of in situ SST data: moored buoys in the northeast Atlantic operated by the United Kingdom's Meteorological Office. These buoys provide much-needed data in high-latitude regimes, as the matchups are dominated by data from tropical and temperate regions. Also, a previously unavailable set of drifting buoy data for the Greenland-Iceland region has been obtained from NATO, and will be used in future matchup data bases.

We have been examining alternative formulations for a Pathfinder SST algorithm in close collaboration with the SST Science Working Group. We are very close to defining a consensus algorithm for the Pathfinder processing. The algorithm is based on the non-linear SST formulation (NLSST) originally proposed by C. Walton (NOAA-NESDIS). Once the algorithm is approved, we will immediately provide coefficient sets for NOAA-9 and NOAA-11 to JPL, so Pathfinder global SST fields can be produced in a consistent manner.

A new line of work began during this period. Until now, the compilation of in situ SST data to be used in developing the matchups has been based on historical data from archive centers (e.g., the National Oceanographic Data Center). In the last few months, we have been exploring a collaboration with the Naval Oceanographic Office to obtain near-real time SST data from multiple sources. This would allow a timely estimation of coefficients. This effort is just beginning and we expect to continue working on this topic in the near future.

B.4 DSP Support (M)

B.4.1 Testing:

B.4.2 Modifications/Additions to DSP:
Add MODIS prologs to source files.
Use "__unix__" when looking for UNIX systems.

B.4.3 PROBLEMS FIXED:
INC/ASSDATA.H,ASSDATA.RAT:
Add ASS_VERSION_INFO to contain version information for pathnlc through to the mapper. Delete two unused ASS_TIME_BIN_* definitions.
INC/ARG.H ARG.RAT:
Add flags to support parameters from a file instead of the command line.
INC/XFB.H:
"void *" better be supported by your C compiler.
Replace "u_char", "u_int", etc. with the long names, it's impossible to get the includes right. Remove the swapping macros.
INC/WRKSPC.H:
Add conditionals so it can be included multiple times.
INC/RTLIB.H:
Add FORTRAN mappings for RTLIB routines.
INC/NETCDF.RAT:
Change MAXNCOP to 32.
INC/MIAMI.RAT:
Declare PTR correctly on the Alpha.
INC/DSPLIB.H:
Declare "fchunk"'s argument as "void *" if using GNU C.
INC/DISPLAY.DEF:
Fix the declaration of IMGFILE and SUBIMAGE_HEADER on Alpha's.
INC/DISPLYCOM.RAT:
Add support for the memory framebuffer device.
XFBD:
Add support for UNIX domain sockets, they considerably speed up CALLER/comcom communications. We need to emulate "atexit" on SUNos.
Sun's don't need htons and family defined.
Replace occurrences of u_char, u_short, etc. with the long names. It's darned near impossible to get the system includes right.
STATS/STATS.MICE:
Use integer instead of character to hold counts - it was larger than 512 in some cases.
DISPLYSHR/ASTSER.C CC_COMINT.C GETCMD.C GETDP.C GETMSG.C:
Add support for UNIX domain sockets, they considerably speed up CALLER/comcom communications.
FB/X-LIB.C:
Add support for UNIX domain sockets, they considerably speed up CALLER/comcom communications.
CALLER/CALLER.H DOGETMSG.C DOSNDMSG.C DOSTRPRC.C:
Add support for UNIX domain sockets, they considerably speed up CALLER/comcom communications.
Remove extraneous debug statement. Closing the other end of the pipe is only used on UNIX.
Only include <sys/un.h> on UNIX.
Remove build of timer.c, it was a debugging leftover.
Fix grammar error in comment.
Add two new functions to enable/disable SIGCHLD handling.
On Ultrix we don't need to include "sys/un.h".

Print out message if we can't bind to the CALLER socket reminding user
to delete the file in /tmp.
Change the protection of the CALLER UNIX domain socket to 0777.
We need to call "vigil" on UNIX also.

DSP/COMINTDSP.C DISPATCH.C:

Add support for UNIX domain sockets, they considerably speed up
CALLER/comcom communications.
SUNos needs "atexit" support.
Explicitly set the permission on the CALLER sysoutupt socket.
Include <smg$routines.h> to shut the C compiler up.
Include <smgmsg.h>, DEC moved where SMG$_EOF is defined.

IO/ASSOC.C:

Remove unused assoc block types (ASS_TIME_BIN_*) and add
ASS_VERSION_INFO.

IO/GET.C:

We need <stdio.h> on VMS to support that silly ARG_IS_FILENAME. The DEC CC
renamed VMSERRNO to EVMSERR.

IO/MAKEFILE:

Build library with debugging records for easier trouble shooting.

IO/GET.C DSPLIB.C:

Fix handling of long command lines (512 byte buffer too small).

MAKE-BSD/BUF.C JOB.C:

Add casts to keep the C compiler quiet.

MAKE-BSD/MAKEFILE.VMS:

Add a "clean" target.

MAKE-BSD/WAIT.H:

The new DEC C defines "pid_t" so we don't have to.

SSBIN-HDF:

Do statistics according to TM 32.
Fix binning algorithm (loop through width of pixel properly); add
one bin per pixel binning algorithm (for SeaWiFS); put invalid value in
sums (1e30) if pixel value is zero and write warning message.
Change default grid size to 8 (instead of 16); add one bin per pixel binning
algorithm (for SeaWiFS). Fix "invalid data" messages; comment out mask
file option; fix check for seam crossing. Attempt to fix splitting at
seam for data day. It still isn't quite right for images which include the
north pole. Fix use of loop index for 'this' or 'other' data day.
Fix declaration of BITS to be long instead of short. Fix check for UNIX
system. Update to work with SeaWiFS I/O v4.4.
Fixed use of proc_con and proc_log. Assume a minimum value (0.001).
Use double precision in statistics calculations.
Fixed setting of binning period start and end dates.

STBIN-HDF/STBIN.MICE:

Do statistics according to TM 32. Fix error messages for SeaWiFS.
Set time trend: for daily bits start at first orbit for the day; for weekly
bits start at first day of that 8-day period; for monthly bits start at
first day of that month period; for year bits represent the month of the
year (bit one is Jan.). Fix check for UNIX system.
Update to work with SeaWiFS I/O v4.4.
Get start and end orbits and infiles from input files to set output fields
properly. Use new function DAYSINMONTH to check inputs for month products.
Use ISLEAP to determine if a year is a leap year instead of in line code.
Fix setting of input file names the time trend field, and start and end

orbits. Add ability to create an "OTHER" product. New function to calculate the number of days in a given month for the give year.

SMAP9-HDF/SMAP9.MICE:

Do statistics according to TM 32. Output very large value (1e30) if input is invalid. Fix check for UNIX system. Fix spelling of CHLOR_A_K_490 input band name, and fix calibration information for CHLOR_A_K_490. Output zero (not 1e30) for pixels not in output projection. Update to work with SeaWiFS I/O v4.4. Fix use of proc_con and proc_log. Add Mode and Median products. Assume a negative variance up to -1.0d-4 is really zero. Use double precision in statistics calculations.

PATHBIN-HDF:

Pathbin using MODIS HDF routines.

SPHLIB/SPHSHR.MAR SPHSHR-ALPHA.OPT:

Create external entry points for REFLEC and SUNANG.

SPHLIB/EPHS.F SUNANG2.F:

Make all constants double or single where appropriate, and use functions to specifically convert types. Small changes to double precision code to preserve more accuracy. Bring up to date with bin/colorshr versions.

COLORSHR/MAKEFILE EPHS.F RAYLEI.F REFLEC.F SUNANG2.F:

Reconcile duplicate files in bin/colorshr and lib/sphlib in favor of sphlib.

COLORSHR/EPHS.F:

Small changes to double precision code to preserve more accuracy.

COLORSHR5/MAKEFILE:

Reconcile duplicate files in bin/colorshr and lib/sphlib in favor of sphlib.

COLORSHR7/MAKEFILE:

Reconcile duplicate files in bin/colorshr and lib/sphlib in favor of sphlib.

COLORSHR8/MAKEFILE:

Reconcile duplicate files in bin/colorshr and lib/sphlib in favor of sphlib.

COLORSHR8/COLORSUB8.C:

Use fractional day in f0var call. Use scan line date instead of starting date for data that crosses midnight. Add missing declaration for ffmod(). Modify Rayleigh result to reflectance. Calculate different atmospheric correction coefficients to facilitate removal of ozone from aerosol radiance. Correct white cap reflectance equation. Remove unnecessary term from 'abst' coefficient.

ANLY8D/ANLY8DBL.RAT:

Use fractional day in f0var call. Add debug code to set minimum values for mout/pout. Add debug code to use entries 13/14/15/16 in FLAGS2_PC. Update counters for any bits set in l2flags returned by get_l1a_record. Move calls to set_calibration/set_climatology _before_ routines that use their results. Test return status of set_calibration (missing sensor calibration file is now an error). Change Fresnel calculation. Was using incorrect angle (azimuth vs. zenith). Another correction to Fresnel calculation: use correct zenith angle (satellite) and only recompute when sensor tilt changes. Change Rayleigh to reflectance. Separate atmospheric coefficients to allow ozone aerosol correction to be done and to make clear other corrections. Add alternate Carder chlorophyll algorithm when regular Carder calc fails. Remove code related to older aerosol correction calculation. Adjust usage of proc_con and proc_log to conform with specs. Add commas to format statements for f90. Interpolation of delta phi angle was improper across cut line. Change when ozone correction is applied

(do it earlier). Correct white cap adjustment to radiance. Correct albedo calculation. Discard epsilon carry over result if too many pixels since last good result. Fix atmospheric calculations to more correctly apply various corrections. Yet another try at the 865 albedo calculation based on Vol. 28, pgs 8--12.

ANLY8D/HDF-IO1.RAT HDF-IO2.C:
Compute current year/day to allow day crossing by satellite data. Do not default sensor calibration file. Return error from set_calibration/get_l1a_openf if no sensor calibration file.

ANLY8D/ANLY8INOUT.RAT:
Remove explicit limit values from satellite/solar zenith angle messages. Fix spelling in RCS line.

ANLY8D/CARDER_ALT_CHLOR.C:
Initial version. Substitute algorithm if main one fails.

ANLY8D/MAKEFILE:
Add alternate chlor calc: carder_alt_chlor.c

ANLY8D/WANG2.F:
Change Rayleigh to reflectance. Modify associated calculations. Remove portability problems. Correct interpolation of rho_a(765) and rho_a(865) using ratio_x. Fix comments. Remove duplicate code. Simplify epsilon carry over check.

ANLY8D/TEST_WANG2.F:
Add in-band/out-of-band rayleigh optical thickness information. Correct 670 rayleigh optical thickness. Disable epsilon carry over test. Update to Howard's latest test suite.

ANLY8D/SeaWiFS_test_NO_Oz_wc.dat SeaWiFS_test_Oz_wc.dat:
Add new data files for updated test_wang2.f.

B.5.2 MODIS (M)
MODIS

B.5.2.1 Jim Brown has been integrating the latest MODIS Ocean Team science algorithms into the processing package for the Oceans SCF.
Jim Brown has been integrating the MODIS I/O algorithms into the processing package for the Oceans SCF. To complete this effort, valid test data files muat be received to be able to verify the routines.

B.5.2.2 In the first quarter of 1996, Richard Sikorski focused on testing and updating a VMS version of the RAL model, starting from a version originally supplied by the Rutherford Appleton Laboratory.

He used the model to translate the atmospheric attenuation data into ASCII for future portability, and compared that data to published emissivities to test code and data integrity. Our data matched the published data, with our data showing better resolution.

Initially, the model produced brightness temperatures that were significantly different from expected model results. We corrected three problems:

1) Channel filters were not applied correctly to NOAA-9 channel 3, and were not applied at all to NOAA-11 channel 3. We corrected the code.

2) The set of profiles in ALBIN.2 with the VMS code was truncated. We obtained a complete version.

3) The program for reading these profiles contained a default that removed all water-vapor data from the profiles. We removed that default.

Our current VMS version of the RAL model now successfully accomplished these goals:

1) It reproduces test results that were supplied with the original model code.

2) It calculates brightness temperatures:
   Using Bramson's emissivities.
   From radiosonde profiles or supplementary SST data.
   For channels 3, 4, & 5.
   For NOAA 9 and 11.
   For pathlengths of 1 to 2 air-masses.

In addition to work on the RAL model code, we've been systematically reviewing radiosonde datasets, instrumentation, and data handling strategies. We've identified some shortcomings and resources worth attention.

1) Radiosondes for marine atmospheres are sparse (compared to terrestrial data). This is particularly true in the southern hemisphere.

2) Sensor behavior is problematic under some conditions. e.g.
   The recovery-time of the humidity sensor from saturation, and the possible effects of insolation or evaporation on the temperature sensor is not well-characterized and should be studied.

3) The standard methods for reducing radiosonde data remove some of the information needed to solve sensor and advection problems. Some non-reduced radiosondes are available, and should be used to address sensor questions.

4) Other techniques, such as GPS (UCAR/JPL) and Raman LIDAR (NASA), can deliver additional data on atmospheric composition and properties, and may develop into rich sources of profile data or corrections.

We have also located additional sources of atmospheric data that can be used with the RAL model, including:

1) The NASA/Goddard Distributed Active Archive Center
   The Assimilated 4-D Climate Data
   The Earth Science data sets e.g. TOGA/Coare Data
   The Interdisciplinary Data Collection e.g. NOAA/NASA Pathfinder/TOVS

2) The NASA/Goddard Data Assimilation Office
   The GEOS-1 Multiyear Assimilation
   The Upper Atmosphere Research Satellite (UARS) Data Set
   TOGA COARE Assimilations

3) The NASA/Langley Distributed Active Archive Center
   The Liquid Water (lwp) data set
   The Cloud Liquid Water (lwpcld) data set
   The Water Vapor (pwc) data set

4) The NASA/Marshall Distributed Active Archive Center
   The NASA Water Vapor Project (NVAP) Data Set

5) The NCAR Atmospheric Technology Division Research Data Program

The Tropical Ocean/Global Atmosphere (TOGA-COARE) data set

6) The NOAA Forecast Systems Laboratory (FSL) National RAOB database

7) The TIGR Radiosonde database

8) The University of Colorado
The Arctic Water Vapor Characteristics Data Set
The TOVS Pathfinder Path-P Arctic Atmospheric Data

B.6 Team Interactions

C. FUTURE ACTIVITIES

C.1 Database Future Work

C.2 Client/Server Future Work

C.3 Pathfinder (P)

C.3.2 Continue algorithm tests and Pathfinder-Reynolds comparisons.

C.4 MODIS (M)
C.4.1. Delivery of prototype ocean code to MODIS team.
C.4.2. Work with team to update product algorithms.
C.4.3. Work with Hughes on processing rules/scenarios.

C.5 SeaWIFS (S)
C.5.1 Continue testing of Gordon's algorithms and its interaction with HDF ancillary routines.
C.5.2 Continue timing tests with CZCS and SeaWiFS algorithms.

D. PROBLEMS

D.1 Database Problems

None listed separately

D.2 Client/Server Problems

None listed separately

D.3 Matchup Database Problems

None listed separately

D.4 DSP Related Problems

None listed separately